

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.             | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|-----------------------------|-------------|----------------------|-------------------------|------------------|
| 10/706,809                  | 11/12/2003  | C. Allen Smith       | 03768/09188DIV 6952     |                  |
| 7590 08/16/2006             |             | EXAMINER             |                         |                  |
| Stephen E Bondura           |             |                      | COLE, ELIZABETH M       |                  |
| Dority & Manning PA         |             |                      | A DOT LOUIS             | DADED MINADED    |
| One Liberty Square          |             |                      | ART UNIT                | PAPER NUMBER     |
| 55 Beattie Place Suite 1600 |             |                      | 1771                    |                  |
| Greenville, SC 29601        |             |                      | DATE MAILED: 08/16/2006 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |   | Application No.                             | Applicant(s)                |  |  |  |
|--|---|---|-----------------------------|--|--|--|
| Office Action Summary  |   | 10/706,809                                  | SMITH ET AL.                |  |  |  |
|  |   | Examiner                                    | Art Unit                    |  |  |  |
|  |   | Elizabeth M. Cole                           | 1771                        |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply  |   |   |                             |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |   |                             |  |  |  |
| Status   |   |   |                             |  |  |  |
| 1)   | Responsive to communication(s) filed on   |   |                             |  |  |  |
|  |   | action is non-final.                        |                             |  |  |  |
| •  |   |   |                             |  |  |  |
| ,  | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. |   |                             |  |  |  |
| Dispositi  | on of Claims  | ,   |                             |  |  |  |
| <u>4</u> )⊠  | Claim(s) 1-22 is/are pending in the application.  |   |                             |  |  |  |
|  | 4a) Of the above claim(s) <u>1-8</u> is/are withdrawn from consideration.                 |   |                             |  |  |  |
|  | Claim(s) is/are allowed.  |   |                             |  |  |  |
| ·  | )⊠ Claim(s) <u>9-22</u> is/are rejected.  |   |                             |  |  |  |
| ·  |   |   |                             |  |  |  |
| _  |   |   |                             |  |  |  |
| ,  | -   | election requirement.                       |                             |  |  |  |
| Application Papers   |   |   |                             |  |  |  |
| 9)☐ The specification is objected to by the Examiner.  |   |   |                             |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |   |   |                             |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |   |                             |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |   |                             |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |   |                             |  |  |  |
| Priority u   | nder 35 U.S.C. § 119  |   |                             |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>  |   |   |                             |  |  |  |
| Attachment   | • •   |   |                             |  |  |  |
|  | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (PTO-948)    | 4) LI Interview Summary Paper No(s)/Mail Da |                             |  |  |  |
| 3) 🛭 Infom   | nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date <u>5/30/06</u> .   |   | atent Application (PTO-152) |  |  |  |

Application/Control Number: 10/706,809

Art Unit: 1771

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

Page 2

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United

States.

2. Claims 9-13,16 are rejected under 35 U.S.C. 102(b) as being anticipated by

Stehling et al, U.S. Patent No. 5,382,631. Stehling discloses polymer blends which may

comprise components having a narrow molecular distribution. See abstract. The blend

comprises linear ethylene. Suitable components for the blend include plastomer blend

components in the density range of about 0.88-0.900 g/cc, very low density

polyethylene blends components having a density in the range of 0.900 - 0.915 g/cc

and linear, low density polyethylene blend components in the density range of about

0.915 – 0.940 g/cc. Example 5 discloses a composition where one component has a

density of 0.884 g/cc and the other has 0.9348 g/cc and the components are present in

equal parts. The resulting polymer can be extruded and formed into fibers and formed

into nonwoven fabrics. See col. 24. The polymer can be formed into stretch films and

therefore it is presumed to be elastic. Further, since the instant composition is identical

to the claimed composition it would necessarily have the same properties and

characteristics.

Application/Control Number: 10/706,809

Art Unit: 1771

3. Claims 9,13-15, 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Land et al, U.S. patent No. 5,266,392

Page 3

Land discloses a LLDPE having a density of 0.915 to .094 and a melt index of 10-100, (see col. 4, lines 12-22) which is present in an amount of 10-40 percent by weight of the blend and plastomer which corresponds to the claimed elastomer having a density in the range of 0.865-0.90 g per cubic centimeter. See col. 4, lines 32-64. The blend can be formed into nonwoven fabrics, such as melt blown and spunbonded fabrics. See col. 8, lines 1-27.

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 9-15, 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Land et al, U.S. Patent NO. 5,266,392 in view of Stehling, U.S. Patent No. 5,382,631. Land discloses a LLDPE having a density of 0.915 to .094 and a melt index of 10-100, (see col. 4, lines 12-22) which is present in an amount of 10-40 percent by weight of the blend and plastomer which corresponds to the claimed elastomer having a density in the range of 0.865-0.90 g per cubic centimeter. See col. 4, lines 32-64. The blend can be formed into nonwoven fabrics, such as melt blown and spunbonded fabrics. See col. 8, lines 1-27. Although Land uses the term plastomer and

Art Unit: 1771

distinguishes elastomers and plastomers in terms of crystallinity and density, since Land also teaches the materials having the density of 0.865 and the same composition, and since the instant elastomer is not further defined in terms of it's crystallinity, strength, etc., it is presumed that the plastomer of Land is the same structurally as the elastomer of Land.

- 6. Land differs from the claimed invention because Land does not teach hat the components have a narrow molecular weight distribution. Stehling teaches that it is desirable to use polymers having a narrow molecular weight distribution at col. 7, lines 27-48, because the narrow molecular weight distribution improves the melt processability and rheological characteristics of the blend. Therefore, it would have been obvious to have formed the blend of Land so that it comprised a narrow molecular weight distribution, motivated by the teaching of Stehling that this would improve the properties of the blend.
- 7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stehling, U.S. Patent NO. 5,382,631 in view of EP 0600482. Stehling discloses a blend as set forth above. Stehling does not specifically describe the particular amounts of each component of the blend. EP '482 teaches a composition comprising a blend of a first ethylene alpha olefin which is present in amount of 50-99 % by weight having a density of 0.87 0.92 g/cc and a low density polyethylene with a density of 0.915 0.930 g/cc which is present in an amount of 2-50% by weight. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the components of Stehling in the proportions set forth by EP '482, motivated

Application/Control Number: 10/706,809

Art Unit: 1771

by the expectation that these amounts were recognized as suitable in the art for forming blends.

Page 5

- 8. Applicant's arguments filed 5/30/06 have been fully considered but they are not persuasive. Applicant argues that the examples of Stehling do not teach that the elastomeric polyolefin having a density of less than 0.880. However, Stehling does teach densities of about 0.88 - 0.900, and therefore assuming "about" refers to roughly 10 percent of the claimed range, then Stehling does teach densities less than 0.88. While the examples may not teach lower densities, the disclosure in the summary of the invention portion of Stehling does teach the claimed value.
- 9. Applicant's arguments regarding EP '482 are moot in view of the new grounds of rejection.
- 10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

**Art Unit: 1771** 

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

Elizabeth M. Cole Primary Examiner

Art Unit 1771